

CLAIMS:

1. Recording apparatus for recording channel symbols of a channel data stream on a record carrier (50), said apparatus being adapted for recording said channel symbols as a channel band (cb) of at least two symbol rows (sr) one-dimensionally evolving along a first direction (t) and aligned with each other along a second direction (r), said two directions
5 constituting a two-dimensional lattice of symbol cells (sc) each being associated with a symbol area (sa) of the record carrier (50), wherein a channel symbol is recorded in the form of a mark area (rpm) having a longitudinal shape of a length in said first direction (t) substantially equal to the length of a symbol area (sa) in said first direction (t) and of a width in said second direction (r) being smaller than the width of a symbol area (sa) in said second
10 direction (sa).
2. Recording apparatus as claimed in claim 1, wherein said mark area (rpm) has a rectangular or square shape.
- 15 3. Recording apparatus as claimed in claim 2, wherein said mark area (rpm) is a pit area comprising a rectangularly shaped pillar portion or a rectangularly shaped hole.
4. Recording apparatus as claimed in claim 1,
20 wherein said mark area (rpm) covers less than 75% of the associated symbol area (sa), in particular between 45% and 55% of the associated symbol area (sa).
5. Recording apparatus as claimed in claim 1, wherein said mark area (rpm) is a pit area comprising a rectangularly shaped amorphous area
25 with a polycrystalline environment.
6. Recording apparatus as claimed in claim 1, wherein said mark area (rpm) is a pit area comprising a rectangularly shaped polycrystalline area with an amorphous environment.

7. Recording apparatus as claimed in claim 1,
wherein said apparatus is adapted for arranging said symbol cells (sc) on the lattice points of
a quasi-hexagonal, quasi-rectangular or quasi-square lattice and are arranged with a symbol
5 area having a hexagonal, rectangular or square shape, respectively.

8. Method of recording channel symbols of a channel data stream on a record
carrier (50), said channel symbols being recorded as a channel band (cb) of at least two
symbol rows (sr) one-dimensionally evolving along a first direction (t) and aligned with each
10 other along a second direction (r), said two directions constituting a two-dimensional lattice
of symbol cells (sc) each being associated with a symbol area (sa) of the record carrier (50),
wherein a channel symbol is recorded in the form of a mark area (rpm) having a longitudinal
shape of a length in said first direction (t) substantially equal to the length of a symbol area
(sa) in said first direction (t) and of a width in said second direction (r) being smaller than the
15 width of a symbol area (sa) in said second direction (sa).

9. Record carrier on which channel symbols of a channel data stream are
recorded as a channel band (cb) of at least two symbol rows (sr) one-dimensionally evolving
along a first direction (t) and aligned with each other along a second direction (r), said two
20 directions constituting a two-dimensional lattice of symbol cells (sc) each being associated
with a symbol area (sa) of the record carrier (50), wherein a channel symbol is recorded in
the form of a mark area (rpm) having a longitudinal shape of a length in said first direction (t)
substantially equal to the length of a symbol area (sa) in said first direction (t) and of a width
in said second direction (r) being smaller than the width of a symbol area (sa) in said second
25 direction (sa).

10. Record carrier as claimed in claim 9,
wherein said record carrier (50) is a recordable or a rewritable record carrier, in particular
having a phase-change recording layer.